

# Anti-Infective Endotracheal Tube

## ABSTRACT

A multi-lumen endotracheal tube has means for coating an inside and an outside surface of the endotracheal tube with antimicrobial and antibiofilm agents; means for releasing antimicrobial and antibiofilm agents from the endotracheal tube; means for using electrical current to enhance the efficacy of the antimicrobial and antibiofilm agents; and means for using ultrasound energy to enhance the efficacy of the antimicrobial and antibiofilm agents. In another feature of the present invention, the multi-lumen tube further has an outer lumen, and a concentric inner lumen, and the outer lumen contains the means for coating, the means for releasing, the means for using electrical current, and the means for using ultrasound energy. In another feature of the present invention, the inside and outside surfaces have a surface coating to reduce the buildup of bacteria and biofilm on the surface.